

What is claimed is:

1. A non-invasive method for obtaining pharmaceutically effective levels of a product in the bloodstream, said method comprising the steps of:

administering to a subject, by inhalation, a recombinant adeno-associated virus (AAV) comprising a transgene encoding a product under the control of regulatory sequences which direct expression of the product in lung cells transfected with the rAAV, whereby the expressed product is passed to the bloodstream from the lung cells.

2. The method according to claim 1, wherein the recombinant AAV is formulated in a liquid suspension for aerosol or spray delivery.

3. The method according to claim 1, wherein the recombinant AAV is administered at a dose of  $1 \times 10^{10}$  to  $1 \times 10^{15}$  genomic copies.

4. The method according to claim 1, wherein the recombinant AAV comprises AAV 5' ITRs, a transgene and 3' AAV ITRs in an AAV capsid protein.

5. The method according to claim 4, wherein the recombinant AAV comprises ITRs of an AAV serotype heterologous to the serotype of the AAV capsid protein.

6. The method according to claim 5, wherein the recombinant AAV comprises AAV2 5' ITRs, a transgene and 3' AAV2 ITRs in a capsid protein of AAV5.

7. The method according to claim 1, wherein the transgene encodes a secreted product selected from the group consisting of apolipoprotein E, erythropoietin, Factor IX, and Factor VIII.

8. The method according to claim 1, wherein the transgene encodes an antibody or a functional fragment thereof.

9. The method according to claim 1, wherein the transgene encodes a secreted protein having high affinity to presinillin.

10. A pharmaceutical kit for delivery of a secreted product, said kit comprising:  
a suspension for aerosol or spray delivery of a predetermined dose by inhalation, said suspension comprising a recombinant AAV comprising a transgene encoding a secreted product and a physiologically compatible carrier.

11. The kit according to claim 10, further comprising a container for delivery of the predetermined dose.

12. The kit according to claim 11, wherein the container is designed for aerosol delivery of the dose.

13. The kit according to claim 11, wherein the container is designed for delivery by pump spray.

14. The kit according to claim 10, wherein the dose of recombinant AAV is  $1 \times 10^{10}$  to  $1 \times 10^{15}$  genomic copies.

15. The kit according to claim 10, wherein the recombinant AAV comprises AAV 5' ITRs, a transgene and 3' AAV ITRs in a capsid protein.

16. The method according to claim 15, wherein the recombinant AAV comprises ITRs of an AAV serotype heterologous to the serotype of the AAV capsid protein.

17. The method according to claim 16, wherein the recombinant AAV comprises AAV2 5' ITRs, a transgene and 3' AAV2 ITRs in a capsid protein of AAV5.

18. The pharmaceutical kit according to claim 10, wherein the transgene is apolipoprotein E.

19. The pharmaceutical kit according to claim 10, wherein the kit is used for treatment of hemophilia and the transgene is selected from the group consisting of Factor IX and erythropoietin.

20. The pharmaceutical kit according to claim 10, wherein the kit is used for treatment of diabetes and the transgene is an insulin protein.

21. The pharmaceutical kit according to claim 10, wherein the kit is used for the treatment and/or prevention of Alzheimer's disease and the transgene is selected from the group consisting of an anti-presenillin single chain antibody and a synthetic zinc finger transcription factor that dominantly represses the presenillin promoter.

22. The pharmaceutical kit according to claim 10, wherein the transgene encodes an antibody or functional fragment thereof.